



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,628	12/26/2001	John I. Johnson	71493-1037 /pw	4432
7380	7590	08/13/2004	EXAMINER	
SMART & BIGGAR/FETHERSTONHAUGH & CO. P.O. BOX 2999, STATION D 55 METCALFE STREET OTTAWA, ON K1P5Y6 CANADA			PITARO, RYAN F	
			ART UNIT	PAPER NUMBER
			2174	
DATE MAILED: 08/13/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/025,628	Applicant(s) JOHNSON ET AL.	
	Examiner Ryan F Pitaro	Art Unit 2174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-19, 21-29 and 31-36 is/are rejected.
- 7) ☐ Claim(s) 10, 20, 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2174

DETAILED ACTION

Allowable Subject Matter

1. Claims 10,20, and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
2. The following is an examiner's statement of reasons for allowance:

The prior art made of record fails to anticipate or make obvious the claimed invention. Specifically, the prior art fails to teach, in combination with the remaining elements:

the method wherein the graphical representations of the channels are parallel bars, and the selection of a longitudinal location along the selected route is effected by moving a slide tab displayed along the parallel bars.

Although the prior art teach a substantial amount of the claimed matters, the art of record do not teach all of the claim limitations.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2174

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 31 is rejected under U.S.C. 102 (b) as being anticipated by Bass et al (“Bass”, US# 674446).

As per Claim 31, Bass teaches a method in a computer system for displaying network management information for an optical network (Bass, Column 1 lines 10-15), said optical network comprising a plurality of nodes (Bass, Column 2 lines 23-25) and a plurality of links for transmitting optical signals (Bass, Column 2 lines 49-52) between said plurality of nodes, wherein each of said optical signals is a multiplexed combination of a plurality of channel signals(Bass, Column 2 lines 49-52), the method comprising:

Identifying in the plurality of nodes, add/drop nodes at which a channel signal may be added to, and/or dropped from, an optical signal on the optical network(Bass, Column 2 lines 30-33);

displaying a network topology panel (Bass, Figure 3 Column 3 lines 15-16); and displaying in the network topology panel, a graphical representation of only those of the plurality of nodes which have been identified as add/drop nodes(Bass, Column 3 lines 20-23).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 2174

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-9,11-19,21-29,32 are rejected under 35 U.S.C. 103(a) as being unpatentable over of Bass et al ("Bass", US # 6,744,446) in view Robinson et al ("Robinson", US # 6,570,867) and Beaudoin et al ("Beaudoin", US Pub # US 2003/0112958).

As per independent claim 1, Bass teaches a method in a computer system for displaying network management information for an optical network (Bass, Column 1 lines 10-15), said optical network comprising a plurality of nodes each comprising at least one optical component (Bass, Column 2 lines 23-25), and a plurality of links for transmitting optical signals (Bass, Column 2 lines 49-52) between said plurality of nodes, said optical network further comprising at least one route (Bass, Column 2 lines 26-28) of optical signal transmission, said route comprising a start node, an end node, and intermediate nodes and intermediate links through which an optical signal is transmitted between the start node and the end node on the route (Bass, Column 3 lines 24-28), wherein the intermediate links of said route are composed of a plurality of channels, (Bass, Column 2 lines 49-52) and each of said channels is composed of at least one longitudinal segment, each of which longitudinal segments may be provisioned for data traffic by a network administrator, and wherein each of said optical signals is a multiplexed combination of a plurality of channel signals (Bass, Column 2 lines 49-52), each of said channel signals having associated therewith, a transmitter optical component and a receiver optical component, (Bass, Column 2 lines 52-55 *end-to-end connections meaning transmittal and receiving*) the method comprising:

Identifying in the plurality of nodes, add/drop nodes at which a channel signal may be added to, and/or dropped from (Bass, Column 30 lines 31-33), an optical signal on the optical network;

displaying a network topology panel; (Bass, Figure 3 Column 3 lines 15-16)
and displaying in the network topology panel, a graphical representation of only those of the plurality of nodes which have been identified as add/drop nodes (Bass, Column 3 lines 20-23);

Bass fails to disclose any of the selected means below; however, Robinson teaches a method such that:

upon selection of an optical components icon:

awaiting selection of a selected route (Robinson Column 7 lines 41-42);
upon selection of a selected route, identifying the start node, at least one intermediate node, and the end node (Robinson, Column 6, lines 58-62 *all nodes in addition to start and end*), of which the selected route is comprised;

upon selection of a channel viewer icon:

awaiting selection upon selection of a selected route (Robinson, Column 6 lines 34-35),

identifying each of the plurality of channels of which the links of the selected route are comprised (Robinson, Column 6 lines 36-39);

displaying a channel viewer panel (Robinson, Figure 3 item 34);

displaying in the channel viewer panel, a graphical representation of each of the plurality of channels identified for the selected route (Robinson Figure 3 item 34); and

communicating in association with each of the graphical representations of the channels, which of the longitudinal segments of which the channel is comprised, has been provisioned for data traffic by the network administrator(Robinson, Column 5, lines 39-44); and

upon selection of a transmitters/receivers icon:

awaiting selection of a selected route (Robinson, Column 9 lines 31-33) ;

upon selection of a selected route, identifying information respecting the transmitter optical component and receiver optical component associated with the channel signal transmitted by each of the channels of which the links of the selected route are composed (Robinson, Column 9 lines 17-20);

displaying a transmitters/receivers panel (Robinson, Figure 3 *where all information regarding alarms and route information is displayed*); and

displaying in tabular form in the transmitters/receivers panel, the information respecting each of the transmitter optical components and the receiver optical components identified for the selected route(Robinson, Column 9 lines 43-48; 50-52).

Therefore, it would have been obvious to an artisan at the time of the invention to combine Robinson's teaching with Bass's method in order to graphically represent what Bass monitors.

Robinson and Bass fail to disclose any of the selected means below; however, Beaudoin teaches a method for:

displaying an optical components panel (Beaudoin, Figure 6);

and displaying in the optical components panel graphical representations (Beaudoin, Figure 6, Column 11 lines 61-66) of at least one optical component of which the start node is comprised, at least one optical component of which the at least one intermediate node is comprised, and at least one optical component of which the end node is comprised, as identified for the selected route; Therefore it would have been obvious to an artisan at the time of the invention combine Beaudoin's teaching with Bass and Robinson's method to graphically represent the optical components in Bass and Robinson for the benefit of detail.

As per claim 2, Robinson also teaches a method further comprising:

when the network topology icon has been selected, displaying in the network topology panel, graphical representation of those of the plurality of links which transmit optical signals between the add/drop nodes (Column 6 44-46)

As per claim 3, Bass also teaches a method when the network topology icon and a selected route have been selected, visually distinguishing in the network topology the graphical representations of the start node, the end node, those of the intermediate nodes at which a channel signal may be added to and/or dropped from an optical signal being transmitted the intermediate links, of which on the selected route, and the selected route is comprised (Column 3 lines 12-15).

As per claim 4, Robinson also teaches a method wherein when the optical components icon has been selected; the graphical representations of the optical components are displayed in a linear configuration, in a sequential order (Figure 3 item

Art Unit: 2174

33 where two paths are shown in this figure, but once a path is selected one path will be displayed).

As per claim 5, Robinson discloses a method when the optical components icon has been selected, visually communicating in the optical components panel, a proportion of a traffic capacity of each link of which the selected route is comprised, (Robinson, Column 7 lines 8-13) which has been provisioned for data traffic by a network administrator.

As per claim 6, Robinson, Bass, and Beaudoin fail to disclose a method where the proportion of the traffic capacity of each link, which has been provisioned for data traffic is visually communicated by displaying a bar graph showing the traffic capacity of the link, and the proportion of that traffic capacity which has been provisioned for data traffic. Official Notice is given that the use of bar graphs in association with displaying capacities is well known in the art; an example of which is bar charts for distinguishing bandwidth, which is trafficking data. Furthermore, the same information can be displayed in a plurality of ways, each having its own advantage, but not changing the information, which is to be read. Therefore, It would have been obvious to an artisan at the time of the invention to combine the bar graph display with the method of Robinson, Bass, and Beaudoin to visually enhance the system.

As per claim 7, Robinson teaches a method further comprising: when the optical components icon has been selected, visually communicating in the optical components panel a proportion of, the traffic capacity of each link of which the selected route is comprised, which has been provisioned for data traffic, which has been provisioned for

Art Unit: 2174

data traffic at a selected speed (Robinson Column 7 lines 47-52 *wherein parameters refers to* Column 6 lines 36-39).

As per claim 8, Bass teaches a method wherein when the optical components icon has been selected, only graphical representations of those components having selected optical characteristics, are displayed (Column 3, 21-24).

As per claim 9, Robinson teaches a method when the channel viewer icon has been selected, upon selection of a longitudinal location along the selected route, displaying in association with each of the graphical representations of the channels, information respecting the longitudinal segment of the channel associated with the selected longitudinal location along the selected route, in tabular form (Column 7 lines 41-46).

Claims 11,21 are individually similar in scope to claim 1 and are therefore rejected under similar rationale.

Claims 12,22 are individually similar in scope to claim 2 and are therefore rejected under similar rationale.

Claims 13,23 are individually similar in scope to claim 3 and are therefore rejected under similar rationale.

Claims 14, 24 are individually similar in scope to claim 4 and are therefore rejected under similar rationale.

Claims 15, 25 are individually similar in scope to claim 5 and are therefore rejected under similar rationale.

Claims 16, 26 are individually similar in scope to claim 6 and are therefore rejected under similar rationale.

Claims 17, 27 are individually similar in scope to claim 7 and are therefore rejected under similar rationale.

Claims 18, 28 are individually similar in scope to claim 8 and are therefore rejected under similar rationale.

Claims 19, 29 are individually similar in scope to claim 8 and are therefore rejected under similar rationale.

As per Claim 32, Bass, Robinson and Beaudoin teach a method in a computer system for displaying network management information for an optical network (Bass, Column 1 lines 10-15), said optical network comprising a plurality of optical components (Bass, Column 2 lines 23-25), and a plurality of optical connections for transmitting optical signals (Bass, Column 2 lines 49-52) between said plurality of optical components, said optical network further comprising at least one route of optical signal transmission (Bass, Column 2 lines 26-28), said route comprising a start optical component, an end optical component, and intermediate optical components and intermediate optical connections through which an optical signal is transmitted between the start optical component and the end optical component on the route (Bass, Column 3 lines 24-28), the method comprising:

awaiting selection of a selected route (Robinson, Column 7 lines 41-42);

upon selection of a selected route, identifying the start optical component, at least one intermediate optical component, and the end optical component (Robinson, Column 6, lines 58-62), of which the selected route is comprised ;

displaying an optical components panel; and

displaying in the optical components panel graphical representations of each of the start optical component, the at least one intermediate component, and the end optical component identified for the selected route (Beaudoin, Col 6 lines 61-66).

7. Claims 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over of Bass et al ("Bass", US # 6,744,446) in view Robinson et al ("Robinson", US # 6,570,867).

As per claim 33 Bass and Robinson teach a method in a computer system for displaying network management information for an optical network (Bass, Column 1 lines 10-15), said optical network comprising a plurality of nodes (Bass, Column 2 lines 23-25) each comprising at least one optical component (Bass, Column 2 lines 23-25), and a plurality of links for transmitting optical signals between said plurality of nodes (Bass, Column 2 lines 49-52), said optical network further comprising at least one route of optical signal transmission (Bass, Column 2 lines 26-28), said route comprising a start node, an end node, and intermediate nodes and intermediate links through which an optical signal is transmitted between the start node and the end node on the route (Bass, Column 3 lines 24-28), wherein each of said links is composed of a plurality of channels (Bass, Column 2 49-52), and each of said channels is composed of at least

Art Unit: 2174

one longitudinal segment, each of which longitudinal segments may be provisioned for data traffic by a network administrator (Robinson, Column 5 lines 39-44), the method comprising:

Awaiting selection of a selected route (Robinson, Column 7 lines 41-42);

upon selection of a selected route, identifying each of the plurality of channels of which the links of the selected route are comprised (Robinson, Column 6 lines 36-39);

displaying in the channel viewer panel, a graphical representation of each of the plurality of channels identified for the selected route (Robinson, Figure 3 item 34); and

communicating in association with each of the graphical representations of the channels, which of the longitudinal segments of which the channel is comprised, has been provisioned for data traffic by the network administrator (Robinson, Column 5 lines 39-44).

As per claim 34 Robinson and Bass teach a method in a computer system for displaying network management information for an optical network (Bass, Column 1 lines 10-15), said optical network comprising a plurality of nodes (Bass, Column 2 lines 23-25) each comprising at least one optical component nodes (Bass, Column 2 lines 23-25), and a plurality of links for transmitting optical signals between said plurality of nodes (Bass, Column 2 lines 49-52), said optical network further comprising at least one route of optical signal transmission (Bass, Column 3 lines 24-28), said route comprising a start node, an end node, and intermediate nodes and intermediate links through which an optical signal is transmitted between the start node and the end node on the route (Bass, Column 3 lines 24-28), wherein each of said links is composed of a plurality of

Art Unit: 2174

channels (Bass, Column 2 49-52), each of said channels being capable of transmitting a channel signal, each of said channel signals having associated therewith, a transmitter optical component and a receiver optical component (Bass, lines 52-55 *end-to-end connections meaning transmittal and receiving*), the method comprising:

awaiting selection of a selected route (Robinson, Column 9 lines 31-33);

upon selection of a selected route, identifying information respecting the transmitter optical component and receiver optical component associated with the channel signal transmitted by each of the channels of which the links of the selected route are composed (Robinson, Column 9 lines 17-20);

displaying a transmitters/receivers panel (Robinson, Figure 3 *where all information regarding alarms and route information is displayed*); and

displaying in tabular form in the transmitters/receivers panel, the information respecting each of the transmitter optical components and the receiver optical components identified for the selected route(Robinson, Column 9 lines 43-48;50-52).

As per Claim 35 Bass and Robinson teach a method in a computer system for displaying network management information for an optical network (Bass, Column 1 lines 10-15), said optical network comprising a plurality of nodes each comprising at least one optical component (Bass, Column 2 lines 23-25), and a plurality of links for transmitting optical signals between said plurality of nodes (Bass, Column 2 lines 49-52), said optical network further comprising at least one route of optical signal transmission (Bass, Column 2 lines 26-28), said route comprising a start node, an end node, and intermediate nodes and intermediate links through which an optical signal is

Art Unit: 2174

transmitted between the start node and the end node on the route (Bass, Column 3 lines 24-28), the method comprising:

upon selection of a selected node, displaying in tabular form in a routes panel, information respecting each route which includes the selected node (Robinson, Column 6 lines 16-24).

As per Claim 36 Bass and Robinson teach a method in a computer system for displaying network management information for an optical network (Bass, Column 1 lines 10-15), said optical network comprising a plurality of nodes each comprising at least one optical component (Bass, Column 2 lines 23-25), and a plurality of links for transmitting optical signals between said plurality of nodes (Bass, Column 2 lines 49-52), said optical network further comprising at least one route of optical signal transmission (Bass, Column 2 lines 26-28), said route comprising a start node, an end node, and intermediate nodes and intermediate links through which an optical signal is transmitted between the start node and the end node on the route (Bass, Column 3 lines 24-28), the method comprising:

upon selection of a selected link, displaying in a tabular form in a routes panel, information respecting each route which includes the selected link (Robinson, Column 7 lines 44-48).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 2174

- Yang et al (US# 6,704,509)
- Beaudoin (US PGPUB US2003/0184599)
- Oliver et al (US# 6,704,016)
- Henderson et al (US# 5,726,979)
- Ghani (US# 6,728,484)
- Planas et al (US# 6,112,015)
- Scaer et al (US# 6,101,498)
- Rochford et al (US# 6,654,803)
- Amoruso (US# 6,504,646)

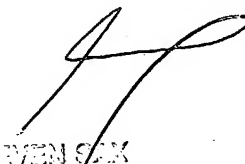
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan F Pitaro whose telephone number is 703-605-1205. The examiner can normally be reached on 7:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid can be reached on 703-308-0640. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ryan F. Pitaro
Examiner
Art Unit 2174

RFP



STEVEN S. PITARO
PATENT EXAMINER